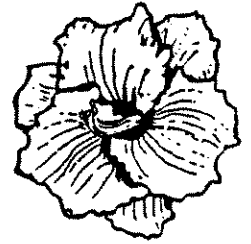




Cedar Valley Iris & Daylily Society



February, 1997

PRESIDENT'S MESSAGE

by Barry Stoll

Greetings! It's a pleasure to turn my attention to gardens and club activities; I needed a break from chopping ice on our lane, which seems to stretch on forever! Access to our house on the hill is impossible by car. We have been reduced to parking at least one car in the front acre. Today I wish we had them both down there. The county road is a muddy mess and an adventure every time we use it. So much for the joys of country living in Iowa this time of year.!

In the midst of all these depressing events, it is time to think Spring (actually only 30 days away!) By now I imagine all of you are climbing the walls as we and our cats are, and just itching to get your hands in the dirt and get your gardens going again. Hopefully all those tempting catalogues have arrived by now and you have picked all the new and choice cultivars that you just can't live without. Unfortunately, it involves sacrificing your food, clothing and shelter budgets. (This is not a problem for us because I just sent in my Publisher's Clearinghouse Sweepstakes winning entry and I *just may* win 10 million dollars!) I find fantasy this time of year very comforting!

1996 was an exciting year for our club! We had an enjoyable meeting at Jean Hecht's and were introduced to Internet possibilities thru the Daylily E-Mail Robin of which she is a member. Those of you who were unable to attend last year will get another chance to view the internet this year, since Jean has extended her hospitality once again. Despite the late spring and rains during the Memorial Day Weekend, the potluck at the Stolls was a lot of fun, including a sighting of a Great Blue Heron depositing a fish in the hosta garden. Everyone got a chance to see intermediate iris and early spring plants that are usually bloomed out during this time. Our daylily tour held on July 27 with special guest Sarah Sikes was an unqualified success! All tour gardens were at peak bloom, a very unusual occurrence at so late a calendar date in our area. We recruited new members because of this event and we learned many valuable pointers from Sarah's enjoyable and informative banquet talk. In response to favorable feedback from this event, we plan to hold a daylily tour in 1997 as well. Our annual plant sale in Monticello was the financially the best one ever, despite having to close early because of a wedding reception conflict at Riverside Gardens. Our fall banquet at the Iowa Memorial Union was well attended. Lynn Stoll gave a slide show of highlights from the 1996 national conventions of the AHS (Denver) and the Society for Siberian Irises (Boston). Fred McDowell showed slides of outstanding performers of recent years in his own garden.

Looking ahead to 1997 Club activities, I am excited about our upcoming meeting on March 15 at Jean Hecht's house. Joy Adams will present a slide show on companion plants that has drawn *rave* reviews in the past. The 1997 Iris Tour planning committee met on February 15 to discuss menus, activities, and schedules for the Region 21 Iris Tour we are hosting this Spring. More on the regional tour at the March 15 meeting. I am looking forward to seeing as many of you who can attend and renewing friendships. I also encourage you to bring a friend who might be interested in the activities and fellowship that our club provides. Meanwhile, back to chopping ice -- and thinking of spring!

REMINDER: DUES ARE DUE!

If you can't attend the March 15 meeting, please send your 1997 dues (\$6.00 individual, \$8.00 family) to the treasurer (Lynn Stoll, 999 310th St., Atalissa, IA 52720) to ensure that you continue to receive the newsletter and notices of club activities. Make checks payable to Cedar Valley Iris and Daylily Society (CVIDS).

SCHEDULE OF UPCOMING EVENTS

March 15: CVIDS spring meeting. Jean Hecht's home (105 N. Dubuque St., North Liberty), 1:00 PM (directions below). Social time, business meeting, plans for 1997 activities. Joy Adams will treat us to a wonderful presentation on companion plants. Lynn Stoll will show slides of club auction plants, including those on this year's auction and some of the 1997 club plant purchases. *Please bring some friends who you think would enjoy our club!* Beverages will be provided; treats to share would be appreciated.

May 10: Project Green Plant Sale, Carver-Hawkeye Arena, Iowa City, 9 AM to Noon.

May 15-18: AHS National Convention, Jacksonville, FL. Complete information can be found in the latest issue of *The Daylily Journal*.

May 24: AIS Region 21 Convention, Iowa City. Our club will be hosting this meeting and tour, so plan now to join us for fun and fellowship, interesting talks, beautiful gardens, and great food. You don't have to be an AIS member to attend. Details will be discussed at the March 15 meetings.

June 3-7: AIS National Convention, Detroit, MI.

July 5~~th~~: CVIDS Club Tour and Dinner (tentative). Plans will be made at the March meeting. This year we are tentatively planning to visit gardens in the southern part of our club area, including that of Gerald and Elenora Hobbs in Ft. Madison.

July 11-13: AHS Region 1 Convention, Marshalltown, IA: An opportunity to tour some terrific gardens and enjoy fellowship with other daylily lovers. As with the AIS regional convention listed above, all daylily lovers are welcome; you don't have to be an AHS member. For information, contact Don Lovell (515-752-6807). *SALTERS WILL BE SPEAKERS \$50/PERSON*

July 18-20: Midwest Regional Hosta Convention. For further information, see notice on p. 11 of this newsletter.

Aug. 23: CVIDS Annual Plant Sale: Riverside Gardens, Monticello, IA. Plan now to set aside some plants to contribute to our only public fund-raising activity, and join us for a pleasant potluck picnic in the gazebo in this beautiful setting!

OTHER UPCOMING CVIDS EVENTS

These will be planned and scheduled at the March 15 meeting. We hope to tour as many gardens as possible during the bloom seasons for iris and daylilies. We also hope to plan some slide shows and some picnics or potlucks. **What would you like the club to do this year?** Come to our meeting, or pass along your suggestions to any of the current officers.

Directions to Jean Hecht's Home (105 N. Dubuque St.): From I-80 (Exit 244), follow Dubuque St. north to North Liberty (6-7 miles). After coming to a 3-way stop at the edge of town, Jean's house is the 8th house on the left; it has a small deck on the front. There is no on-street parking on North Dubuque St.; parking is available in the school parking lot across the street. Questions? Call Jean at 626-6159.

PLEASE CONTRIBUTE TO OUR NEWSLETTER!

A CURE FOR CABIN FEVER:

THE REGION 10 MIDWINTER SYMPOSIUM IN CHATTANOOGA

by Lynn Stoll and Gerald Hobbs

Part One: by Lynn Stoll

Do you suffer from cabin fever and severe daylily withdrawal in January? Why not invite some of the country's leading daylily hybridizers to come to your place for a few days and show slides? Since you've gone to that much trouble, why not invite a few hundred of your dearest daylily-addict friends to join you for the weekend? That's just what Lee Pickles has been doing for seven years, now. The result is a wonderful 3-day daylily symposium which is rich with fabulous daylily slides (and fresh new catalogs), old and new friends to talk with, and lots of solid, useful information about various aspects of growing daylilies. Although there were no gardens to visit, I enjoyed this symposium as much as I've ever enjoyed any national convention; there was more time to meet and visit with other daylily folks, and a lot more opportunity to *learn* about daylily growing.

The slide shows were fabulous. Individual presentations were devoted to the hybridizing programs of Michael Longo, Pat and Grace Stamile, David Kirchhoff and Mort Morss, Bob Carr, Dan Trimmer and Matthew Kaskel, and Pauline Henry. Another session featured 1997 introductions from many different hybridizers. For the final slide presentation, each hybridizer was invited to contribute five slides of his or her most exciting seedlings or future introductions. This was a truly exciting glimpse into the future!

Michael Longo recently moved his garden and hybridizing program from Hawaii to California. He showed an interesting series of slides which demonstrated the great variation seen between individual seedlings grown in the two different environments. It made us aware of how much a given daylily can vary between one garden and another, with different growing conditions.

Pat Stamile has some daylilies in the pipeline that are simply awesome -- they look like an artist's fantasies. Unbelievable combinations of edges, double edges, eyes, multiple eyes, and patterns are coming from Pat's hybridizing program, both in large flowers and in doubles. Some of these make **CREATIVE EDGE** look downright ordinary! And, good news for Northern gardeners: many are completely dormant! Pat's double seedlings include multicolored eyes and petaloids. His #5213A was an incredible 8" eyed double with a wide edge; he said an individual blossom can weigh two pounds! Seedling #5343A was a dark burgundy with clean gold edging on the petals and doubling. The **CREATIVE EDGE** pattern, with its eye and double edge, is now appearing in other color combinations: black and white (white flower, black purple eye), red and white (red or rose eyes and edges on cream grounds).

While Pat is developing exciting large flowers, Grace is working with tiny miniature tetraploids which are absolute jewels. Grace works mainly with pinks, lavenders, and reds, both singles and doubles. All her daylilies are less than 16" in height and 3" in diameter; her most recent work focuses on even smaller flowers, 2" tets and even smaller dips. One interesting slide showed one of her tiny blossoms superimposed on one of Pat's 8" flowers; Grace's tet mini barely covered one petal of the large flower! She calls her series of miniature doubles "popcorn doubles"; **YOU ANGEL YOU** (1996) was her first introduction from this series. Several slides showed tiny (10" tall, 2" flowers) velvety red tet minis which are sunfast all day in Florida. Her future introduction **LITTLE WILDFLOWER** is a double which resembles a miniature dahlia. Grace is also interested in chalky eyes, or "white faces." As with Pat's daylilies, many of Grace's miniatures are also dormant. Grace's program is a truly unique direction in hybridizing; these tiny flowers will be quite distinct from those of other well-known hybridizers of minis, such as Elizabeth Salter and Pauline Henry. I think that Grace's minis will be superb daylilies for the front of the border, and especially suited for smaller gardens.

Bob Carr chose to show a series of slides on how he grows seedlings, from pollinating to starting seeds, planting and growing the seedling, on to the final product. He chided us Northern gardeners who complain about deer damage as he showed a slide of a 6' alligator in his daylilies: "Now, which would you rather have to worry about, deer or alligators?!" Carr uses all frozen pollen in his work; some have questioned the viability of frozen pollen as compared to fresh, but Carr and others stressed that the critical factor in successfully freezing pollen was to keep it *dry*.

Dan Trimmer (New York) and Matthew Kaskel (Miami) gave an interesting joint presentation of their collaborative hybridizing work, which Gerald has also described in Part Two. Dan does a lot of tet conversions, and does his hybridizing in a greenhouse (or "mental health facility"). He mails the seed in the fall to Florida, where it is planted on Matthew's 200-acre tree farm. Every year about May 1, 4000-6000 seedlings are shipped to New York, where many of them bloom in September. This arrangement allows rapid progress toward hybridizing goals. Selected seedlings are then evaluated for performance in the North. There are some striking tet spiders coming from this program which will be future introductions, along with many interesting doubles, eyes, and patterns.

Robert Clary showed a series of slides of Pauline Henry's recent work. Almost all of Pauline's daylilies can be identified by their "Siloam" prefix, which refers to her home in Siloam Springs, Arkansas. Pauline started introducing daylilies in 1963, and has been known for years as "the miniature lady." However, that designation is no longer appropriate: virtually all of her recent registrations are large flowers, 5" or more. Clary said that **SILAM RALPH HENRY**, **SILAM PAUL WATTS**, **SILAM VAUGHAN'S DOUBLE**, and **SILAM AMAZING GRACE** together can be considered the beginning of this new direction. He said that after 30 years of registrations and introductions, Pauline is still as intensely focused as ever on good plant habit, good flower form, and lots of ruffles -- and "ruthless" in evaluating her seedlings! Pauline's daylilies are introduced by Iron Gate Gardens, but are not generally available for several years after introduction.

Other less well known hybridizers whose recent work impressed me greatly were Ted Petit (see the cover of the latest **DAYLILY JOURNAL!**), Steve Moldovan (my friend from Washington said, "Wow, I think I have a new favorite hybridizer!"), Curt Hanson, Judith Weston, Dennis Anderson, and some fine hybridizers who are as yet almost unknown outside their own regions, including Wally Gould (Washington), Larry Grace (Alabama), Jean Duncan (Florida), Emily Olson (South Carolina), and Don Herr (Pennsylvania).

An unlikely highlight of the symposium was Melanie Mason's talk about manure, entitled "The South End of a North-bound Horse: Road Apples in the Garden of Eden." Melanie's memorable presentation was both humorous and very informative. I knew I had been cooped up inside far too long when she showed a slide of some well composted, crumbly manure, and I found myself thinking, "Oh, isn't that beautiful!" Melanie's talk was so well received that it will be reprinted in its entirety in a future issue of *The Daylily Journal*. For the benefit of club members who are not AHS members, I have included a summary and some excerpts elsewhere in this newsletter.

Part Two: by Gerald Hobbs

Over 270 enthusiastic members attended this meeting on warm, sunny days. It was quite a relief to get away from our Iowa snow.

In the hospitality area there were all kinds of handouts and sale publications as advertised in the AHS Journal by Bill Reinke, catalogs by a couple dozen commercial gardens, and tips on growing daylilies. Also for sale were banners, T-shirts, embroidered caps and candies. This area was busy at each break.

We went to Lee Pickles' Chattanooga Daylily Gardens Friday morning, and his large greenhouse was full of daylily seedlings, conversions, and breeders that were all budded and ready to bloom. In fact, a couple were blooming, including Jeff Salter's **PURE AND SIMPLE**. Lee does most of his hybridizing right in the greenhouse. He was originally from Colfax, Iowa.

One of the first programs was the hybridizing of Mike Longo, the Stamiles, Kirchhoff-Morss, and Carr. The slides were spectacular; like they say, "You ain't seen nothing yet!" It's amazing what's coming with the picotees, eyes, ruffles, outstanding edges, spiders, doubles, polytepals, and color breaks.

Dann Trimmer and Mike Kaskell told of their cooperation of gardens in Florida and New York. Trimmer does a lot of tet conversions and hybridizing in New York, and sends seeds and seedlings to Kaskell in Florida, where he grows the plants. They share the plants along with planning, new ideas, and a close friendship. They are making much more progress than they would individually.

Dan Trimmer showed slides of 63 AHS display gardens from all over, even Hawaii. Region One's own Fred McDowell's was among them. There are some beauties out there for everyone to see with varied landscaping and climates. Trimmer encourages us to have even more display gardens, even though the program has expanded from 164 in 1995 to 224 in 1996. It is a way of making the public aware of and appreciate the daylily. All that is necessary is to have the garden open to the public, have a representation of all types, and have them reasonably well labeled and groomed, not necessarily real new or huge quantities.

Melanie Mason gave a very good presentation on manures which Lynn Stoll has summarized elsewhere in this newsletter.

Winston Dunhill talked about dirt -- or, as he prefers, soils. He said soil must have about 45% sand to be considered sandy but only 20% clay to be considered clay soil. So if you have clay soil, you have to mix a tremendous amount of sharp sand in to amend it. He discourages this because it may turn your soil to bricks. Loam is the intermediate composed of aggregate which is better for the plants. Sandy soils have quick drainage, but nutrients and water drain away before the plant gets much benefit. Clay soil holds the nutrients and moisture, but too much moisture will prevent microbial action, lock up nutrients, and kill or retard plants. Loam consists of 45% mineral, 25% air 25% water, and 5% humus. The 5% humus is the hardest to attain and keep in the soil. Your local extension office can run a soil test for you. Wood ashes are high in pH and should be composted before using on your gardens.

To prevent compacting your soil, you should cultivate when the soil is the driest, avoid heavy equipment and traffic, and use minimum cultivation. Don't cultivate when your soil crumble test shows the ball doesn't break when poked. Raised beds are a much easier way to increase your soil depth than adding amendments to the base. Dunhill said there is an increased use of shredded coconut hulls for container gardening.

Bobby Baxter talked on polytepals, which he defined as having more than three petals and sepals and having that same number of stamens with only one pistil. The clump has about 50% showing polytepals the first year and 70% thereafter. There are only 2 daylily cultivars registered as polytepals so far. **OPEN HEARTH** is a good breeder of polytepals. Since polytepaly seems to be a recessive gene, it is best to just cross polytepal blooms together.

Gardens and daylilies of several individual regions were shown by members. These included Regions 8, 15, 7, and 4.

William Potter and his father Dr. Arnell Potter collaborated on a program called "The Next Generation: From Seed to Bloom at the Speed of Light." They combined their ideas with others' to show how to produce bloom in 9 months. Bill Potter listed 5 criteria for speed. They are: (1) early maturity; (2) rebloom; (3) hybrid vigor, (4) season extension, and (5) nutrition. A little about each of these. (1) By early maturity he means breeding from plants that bloom as young plants, such as **WEDDING BAND**, **ANGELS SMILE**, **ALWAYS AFTERNOON**, *etc.* (2) Reblooming plants such as the **STELLA DE ORO** lines and early bloomers so you get seed early in the season, and rebloomers tend to produce early blooming plants. (3) Hybrid vigor: choose plants with this trait for breeders. He also mentioned that tet conversion puts together more pure genes and when crossed on other tet conversions, you get more hybrid vigor. Conversely, too much inbreeding may lose some vigor. (4) Season extension: this is using lights, greenhouse,

row covers, landscape mats, etc. after you get the seeds started. (5) Foliar Feeding. Dro Potter took over here and said that he uses a diluted 10-20-20 or 13-26-26 fertilizer early season about every week. He cautions about using 5-5-5 or 10-10-10, as they contain too many unused salts that build up in the soil. Use about 1 Tablespoon of soluble 13-26-26 to the gallon for foliar feeding. Ammonium sulfate seems more toxic than ammonium nitrate. Potassium seems to deepen the colors. An advantage of foliar feeding is that soil watering may create a lack of oxygen around the roots, locking up bacteria and microbes.

Another system described by William Potter was incremental potting. This starts plants in trays, then transplants to 4" cups, then 8" cups, then lining out. These sessions of transplanting are done as soon as the plant starts to get root-bound. When they are root-bound and transplanted, it gives them a surge of growth. He showed slides of comparative growth, and it was impressive. They use lights in the greenhouse on seedlings for 14-16 hours a day.

There was a question-and-answer forum with Kirchhoff, Mason, Petit, and Potter. They answered that the large amounts of polytepals in 1996 was probably due to both cold and wet weather. Spiders that are hard to set seeds because of the extremely long pistil may be overcome by breaking the style to a shorter length, wiping the stub, then rubbing the stigma back on the stub before applying the pollen. It is thought the material from the stigma should be present for the pollen to be receptive. They explained that the outer shell of the pollen must be compatible with the stigma, which explains why true lily pollen can't fertilize daylilies and vice versa. It was suggested that root-pruning daylilies to 6 or 8" when received in shipping will establish them sooner. Pruning promotes the growth of hair roots which take up the nutrients. The larger fibrous roots mostly store starches and act as anchors. Melanie Mason said she thought early all-winter snows caused the problem of bloom coming right out of the crown; this might have been rebloom if the warm season had been longer in the fall. She encouraged hybridizers to eliminate poor opening cultivars.

Bill Monroe talked on the *proposed* new registration procedures to meet the international code. There will be a preregistration that reserves the name. By the old rule, a new name wasn't official until the end of the year when the Checklist was printed after approval of the committee and registrar. Now each 30 days new names will be reviewed by the registrar and committee, and they will process the registration. This will eliminate the introduction process. The hybridizer will have up to 7 years to fill out data sheets for final registration.

If and when the international code rules are accepted, they will allow up to 30 characters, 10 syllables, 4 words, apostrophes, commas, one exclamation mark, hyphens, and periods, which allows abbreviations. The rules would be retroactive to January 1, 1996. *Not* allowed will be colors which are also common botanical names such as rose, pink, lavender, and other flowers. Also words like cross, improved, hybrid, mutation, seedling, sport, variety, mutant, *etc.* can't be used. Preregistered names will eliminate reserved names, and reserved names would automatically become preregistered. Each year the registry will list the new registered and preregistered names. Whew!

Ted Petit has a garden in Toronto, Ontario, Canada, and one in Florida, 2000 miles apart. Since he also teaches, he must be very efficient with minimum labor and time for maximum results. A study by Dr. Robert Griesbach showed that seeds should be saturated, not wrinkled, when refrigerated; the best germination results for refrigeration at 34-38 degrees for 16-32 days. You get about the same % germination at 32 days as at 16 days, but the germination is faster.

Petit plants seed in 3/4" peat cubes and covers them with sharp sand, using Banrot to prevent dampoff. Optimum temperature for germination is 72 degrees F. After some growth, he transplants the seedlings into a black ground cloth with 4" slits burnt into it for access to the ground. These 4" slits are 4" apart in continuous rows. The seedlings are put immediately into the slits, with the leaves aligned with the slits. The seedlings are not allowed to lie on or touch the black ground cloth. Soil should be kept off the ground cloth to prevent germination of weeds; he also uses a weed preventive herbicide. Petit uses an overhead watering system with a timer; it also siphons fertilizer into the system on another timer. Petit can leave his beds unattended for 2

or 3 weeks at a time. After seedlings are selected, he cuts the leaves off with a Weed-eater and digs them out with a 4" shovel. He kills the culls with a couple of applications of double-strength Roundup. He then transplants the selected seedlings again into black ground cover which he covers with a mulch.

Robert Clary has visited Pauline Henry's garden for the last 7 years. Clary praised her daylilies highly for color, form, ruffles, and vigor. She started crossing for Wilds, but he said she was too fussy in selecting crosses. He wanted quantity and she wanted quality, so she quit him. Anyway, that got her to crossing for herself the way she wanted. She made her first introduction in 1963. She works on only a 110' x 120' lot, including the house and quite a bit of lawn. Her husband helps with the photography, digging, etc. College students also help. She does all of the crossing, carrying stamens around in her mouth, after studying each potential pollinator before using it. It's a myth that she doesn't tag the crosses -- she tags them, but there is no information on the tag. She does it only to keep the college students from breaking off the bud when they deadhead.

Altogether it was a very pleasant and informative symposium. I notice the dictionary defines "symposium" as "to drink together; a drinking party, especially following a banquet." There was some of that, too!

NORTH-END OF A SOUTH BOUND HORSE: ROAD APPLES IN THE GARDEN OF EDEN

by Melanie Mason
(summarized by Lynn Stoll)

Most gardeners think of manures as fertilizer, but in fact, most manures are pretty poor suppliers of nitrogen, phosphate, and potassium. A bag of any common 5-10-5 garden fertilizer has 7 times more nitrogen, 12 times more phosphorous, and 10 times more potassium than manure. However, manure is a fabulous soil conditioner.

What is a soil conditioner and how does it work? Soil is composed of three groups of mineral particles: sand, silt, and clay. The biggest difference between them is the size of the particles. Sand is the largest, and clay is at the small end of the spectrum. For comparison, if a clay particle was an inch across, a sand particle might be 8 feet or more in diameter.

Loam is a mixture or aggregate of different sized particles. Loam can be sandy loam, silt-loam, or clay loam, all determined by the size of the majority of your soil particles. The important thing in these aggregations isn't really the particles themselves, but those empty spaces in between the particles. If the particles are relatively large, as they are in sandy soils, the spaces between the blocks are large. Anyone who has sandy soil knows the difficulties of maintaining a garden when water and nutrients wash rapidly through the soil, and plants have a little chance to use them.

On the other end of the spectrum is clay, as much as 1000 times smaller than sand. With clay, spaces between particles are extremely small, and the attraction between particles is very strong. High concentrations of clay are more suited to pottery than gardening. In wet conditions, water is forced into these tiny spaces, and soils become soggy messes. But when clay soils do dry out, they become rock hard surfaces that resist any attempts to water. The only way to correct the space size in the aggregations is to add *humus*. Humus is the magic bullet. It's that rich black material that comes from decomposed organic matter. Humus is the great equalizer. It helps sandy soils retain water, and helps clay soils shed it. And manure is a great source of humus.

These spaces in the soil hold more than just water. They also hold oxygen, which is used in so many plant growth processes, and various nutrients. When water is present, some of these

nutrients are dissolved, producing a solution that can provide much of the nutrition your daylily needs. But some compounds, notably phosphorous, are practically insoluble in plain water. These essential elements need to be processed to make them soluble. And the processing plant is *microbes*. Manure is teeming with bacteria, fungi, and molds. Like a mill turning wheat into flour, these microscopic critters are busy at work on the mineral parts of the soil as well as the undigested organic parts, turning inaccessible nutrients into usable food for your daylily.

So why do nutrients have to be in solution? When you look at your daylily's roots and see those nice fat tuberous growths and those long pencil-thick roots, what you are seeing are the anchors, pipelines, and storage bins of your plant. None of these root structures actually takes up nutrients. The hard work is done by the tiny root hairs that are at the ends of all the roots and present on the fine white roots. These tiny root hairs penetrate the spaces in the soil and bathe in the nutrient rich moisture that should be there. The actual nutrition takes place in an osmotic transfer through a single cell wall: not just water, but oxygen, nitrogen, carbon, and all manner of trace elements. Without these right-sized spaces in the soil, the root hairs are either left dangling in the void of sandy soil, or butting up against the brick wall of clay soils. And without the microbial activity, much of the soil's nutritional bounty lies beyond your plant's reach.

So, when you add manure to your soil, you are:

- 1) improving your soil's structure by adding organic material.
- 2) improving your soil's water holding and water shedding capacity, and
- 3) making existing stashes of nitrogen, phosphorous, potassium, as well as trace elements available to your plants through increased microbial activity.

Your plants grow better, so you think you've given them a boost of fertilizer.

Although manure is not primarily an important source of the three major nutrients, it can supply a significant amount of nitrogen. However, in order for the nitrogen to be usable in the soil, it needs to be present with carbon. Carbon comes from the cellulose in wood fibers and plant materials such as leaves and grass and undigested hay, straw, and grains. The ideal ratio is 25:1, or 25 parts carbon to every 1 part of nitrogen. If you tinker too much with this 25:1 ratio, you wind up either with nitrogen being given off into the atmosphere or else being bound up in the carbon source and unavailable to the plants. Most gardeners are aware that if you add straight wood chips or sawdust to your garden, it will tie up nitrogen while it is in the decomposition phase. This is an example of too much carbon and not enough nitrogen. An example of the opposite end, too much nitrogen for the amount of carbon, is the farmer spreading hog manure on his fields. The smell indicates that there wasn't enough carbon to keep it in the ground. The excess nitrogen is vaporized, not utilized by the plants.

What's the best manure money can buy? For my money, it's horse manure. Most owners take good care of their horses, and bed them pretty well in wood shavings, sawdust, or straw. "Bedding" is a lot like a cat litter box, or the paper in the bottom of a bird cage. This use of bedding is a distinct advantage to horse manure. The bedding used in most horse barns is a ready source of carbon, with the urine and actual poop being the source for the nitrogen. The horse manure/bedding combination seems to be almost exactly the right ratio of carbon to nitrogen. If you have a choice, seek out a horse barn that beds horses with wood shavings or sawdust rather than straw. Straw breaks down too slowly, and really needs to be chopped up first. Second, the quality of hay fed to the horses makes a difference in the quality of the "end product." Hay with a high alfalfa content is very rich in nitrogen, and manures from alfalfa fed animals will also be higher in nitrogen. Hay cut late in the growing season, or hay from poorly maintained, weedy fields, may contain a high percentage of stemmy grass and weed seeds. This is unappetizing to horses, and they will waste a lot of hay in their stalls -- hay that eventually winds up in the manure pile. Remember that what goes in one end, comes out the other. Like computers, garbage in, garbage out!

A manure pile develops a lot of heat in its core as those bacteria work away on the road apples and the wood shavings. Enough heat to kill off weed seeds that might be there. For the

most part, if the manure/bedding has been composted for two to three months and turned at least once, the 140 and 160 degree temperatures inside the pile will kill the majority of the weed seeds. Mushroom compost comes from horse stables that bed their horses in straw. Mushroom growers put it through a grinder and sterilize it to destroy any weed seeds or alien mushroom spores. It's then used as a growing medium for mushroom culture. After the mushrooms are harvested, the compost is frequently sold to gardeners. The sterilization process has killed off the microbes, and the product is expensive, but it's well composted, and it is a fantastic soil amendment.

With other types of manures, the main problem is the C:N ratio. Worst on the smelling scale are chicken chips. Unless liberal amounts of bedding are incorporated, be wary of chicken poop. It is a lot higher in nitrogen AND a lot more odiferous. Before you use any of it, make sure you compost it with a lot of something high in carbon (leaves, wood chips, pine straw). Otherwise you can be guaranteed that your neighbors will be making almost as much of a stink as your garden. Cow manure is readily available in many areas of the country. It isn't especially high in nitrogen, but without any bedding, the nitrogen level is relatively high and there is no carbon to take it up. Talk about aromatic! The best way to utilize straight-from-the-farm cow manure is to mix it with a *big* load of wood chips, sawdust, ground up leaves, whatever you can find. If you can smell it, the nitrogen is vaporizing. Hog manure isn't as good as horse manure; if you use it, you'll need to mix in something high in carbon. Rabbit raisins are even higher in nitrogen than chicken chips. Put a pile of sawdust or ground up leaves under their hutch to act as the carbon source.

One of the by-products of organic healthy soil is a good population of worms. Every gardener has learned to appreciate the efforts of these humble creatures. These unsung heroes continue digging, making tunnels so the rainwater will sink in, turning organic and inorganic material into readily used plant food, and if conditions are right, spawning even more of themselves. Worms adore manure. Since they don't like it hot, they tend to hang around in the cooler regions of the pile, making inroads as it cools off. If you spread your manure on top of the garden, they will crawl up out of the soil and start working on it almost immediately. If you find earthworms in the middle of your manure pile, you know it is completely composted.

Once you've located a source for manure, what's the best way to get it on your garden? If you are starting a new bed, dig out 12" of soil and add 6" of manure. Rototill that in. Replace the soil and add another 3-6" of manure and rototill that in. You'll have light fluffy soil at first, but it will settle into a bed of really good dirt before you know it. If your garden is already established, you can add manure by way of sheet composting. Simply spread manure in a 3-4" layer directly on your garden and around your daylilies. (Be careful not to put it directly on the crowns of the plants.) Worms do a fine job of mixing it in. This offers many of the benefits without requiring you to up-end your whole garden.

I hope I've converted you to the faith now. You can't add anything better to your garden than good old-fashioned manure. Humus, microbes, nutrients, ... Road-Apples Rule!

Even short contributions by members
are wanted for the newsletter!

DAYLILIES AND THE INTERNET

Those of you with Internet access can browse a variety of Web Sites related to daylilies and other gardening topics. At last count, we had accumulated a list of almost 50 Web Sites on daylilies alone. The AHS maintains a useful and rapidly growing site with information about the organization itself, membership, lists of awards, display gardens, AHS robins, etc. Many hybridizers have sites where you can view images of their recent and future introductions. Also, Jean Hecht and Lynn Stoll belong to the AHS E-Mail Robin, a group of over 300 AHS members who share ideas, opinions, and information on an amazing variety of (mostly) daylily-related topics. This group includes some major hybridizers, commercial growers, scientists, computer experts, artists and photographers -- and a lot of folks who just love daylilies, and want to learn more about them. The group often conducts polls and compiles information on various subjects from members all over the country (see the "Pink Poll," below). Unlike the AHS itself, where most of the membership are from the South, the E-Mail robin is much more representative of daylily growers everywhere; New York has the most members, New England and the upper Midwest are well represented -- and the membership includes at least six Canadian daylily lovers. You can ask almost any question and get an answer (often several answers) back within 24 hours or less. (I once asked a question and received a response from Italy less than two minutes later; now *that's* the sort of thing that gets one hooked on E-mail!)

More information on the robin and daylily Web sites will be available at the March 15 meeting. Members will have an opportunity to view some of these sites, and learn more about what is available. If you're interested but can't attend the March 15 meeting, contact either Lynn or Jean for more information.

POPULAR PINKS

Everyone loves good pink daylilies. But which ones to choose? The E-Mail Robin recently conducted a poll on favorite pink daylilies available for \$10 or less (**BARBARA MITCHELL** didn't quite meet this requirement, but was high on the list anyway). The winners, based on votes from 59 robin members from all over the country, were the following:

- | | |
|--|-------------------------------------|
| 1 Chorus Line (Kirchhoff '81) -- | Mae Graham (Spalding '77) |
| 2 Antique Rose (Sikes '87) | Ming Porcelain (Kirchhoff '81) |
| Siloam Double Classic (Henry '85) | 15 Ah Youth (Simpson '87) |
| 4 Barbara Mitchell (Pierce '84) | Decatur Cherry Smash (Davidson '81) |
| Jolyene Nichole (Spalding '84) | Delightsome (Sikes '85) |
| 6 Fairy Tale Pink (Pierce '80) | Martha Adams (Spalding '79) |
| Lullaby Baby (Spalding '75) | 19 Cool Jazz (Kirchhoff '87) |
| Rose Emily (Pierce '82) | Corryton Pink (Kirby '81) |
| Wind Frills (Tarrant '78) | Jedi Heretic Heart (Wedgeworth '87) |
| 10 Yesterday's Memories (Spalding '76) | Second Thoughts (Sikes '87) |
| 11 Cantique (Bryant '80) | Strawberry Rose (Sikes '87) |
| 12 Becky Lynn (Guidry '77) | |

Northern growers are well represented on the E-mail Robin, and most of these favorite pinks should grow well in our local area, with the possible exception of Martha Adams. (I'm not familiar with Cool Jazz.) All are diploids except Ming Porcelain, Decatur Cherry Smash, Cool Jazz, and Strawberry Rose. I thought it particularly interesting that from among 59 individuals responding to the poll, only one vote was cast for 1995 Stout Medal winner Neal Berrey.

**HOSTAS OF THE HEARTLAND--MIDWEST REGIONAL HOSTA SOCIETY 1997 CONVENTION
DES MOINES, IOWA, JULY 18, 19, & 20, 1997**

SPONSORED BY THE RUSS O'HARRA HOSTA SOCIETY

The Russ O'Harra Hosta Society invites you to join us for a great convention in the Central Iowa area on Friday, July 18, and Saturday, July 19, with optional tours on Sunday, July 20. The convention hotel is The Inn at University, 11001 University Avenue, Clive, Iowa, 50235. It is accessible from I-80, I-235, and I-35 just west of Des Moines. Call 515-225-2222 for room reservations before June 27 to guarantee the convention rate of \$59.00 (single or double -- 1 to 4 persons).

The Registration fee of \$85.00 (before June 15 or \$95.00 after June 15) will include all meals Friday evening through Saturday evening and a superstar banquet speaker. Activities begin Friday afternoon with entries for the Cut Leaf Show and a Judging Clinic. You will be bused to the Iowa Arboretum for a Gala Evening of hosta viewing, buffet dinner, and dedication of the Schutt Hosta House (built in honor of Theresa Schutt). You'll return to the Hotel for viewing of the Cut Leaf Show and hospitality! After an early and hearty breakfast, you'll tour the gardens of O'Harra, Lemke, and Brill in Des Moines and Woods and Wilson in the Indianola area. Lunch, business meeting, and plant auction will be held at the beautiful Des Moines Botanical Center where you can sneak out to the dome if bidding gets too intense! You will return to the Hotel for the evening Banquet at which a modern-day plant collector, Barry Yinger, will tell you about interesting plants he has found in Japan. He promises that some of these are HOSTAS. You'll be provided with invitations and maps to visit other local gardens and hosta vendors on your journeys home on Sunday!

Call Co-Chairs: Jackie Pool (515-981-4806), Lois Girton (515-233-0841), or Kristin Jurik (515-232-9927) for information. Registration limited to 200. Hope to see you in Des Moines!

**REGISTRATION FORM
MIDWEST REGIONAL HOSTA SOCIETY**

Make checks payable to:

Russ O'Harra Hosta Society
\$85.00 per person before June 15, 1997
\$95.00 after June 15, 1997

Send to: Kristin Jurik, 5658 195 St., Ames, Iowa, 50010-9713

Name: _____ Phone: _____

Address: _____

City: _____ State: _____

Zip: _____

Special Needs: _____

Cut Leaf Show Information Needed: _____